FILE 'CAPLUS' ENTERED AT 14:08:16 ON 06 SEP 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 6 Sep 2002 VOL 137 ISS 11 FILE LAST UPDATED: 5 Sep 2002 (20020905/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s low sulfur gasoline 1966668 LOW 274327 SULFUR 58414 GASOLINE L1 65 LOW SULFUR GASOLINE (LOW (W) SULFUR (W) GASOLINE)

=> d 1-65

ANSWER 1 OF 65 CAPLUS COPYRIGHT 2002 ACS L1

2002:521569 CAPLUS AN

DN 137:95826

TI Membrane process for separating sulfur compounds from fcc light naphtha TN

Minhas, Bhupender S.; Chuba, Michael R.; Saxton, Robert J.

ExxonMobil Research and Engineering Company, USA PΑ

SO PCT Int. Appl., 28 pp. CODEN: PIXXD2

DTPatent

LAEnglish

FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE --------- ----------PT WO 2002053253 A1 20020711 WO 2001-US49764 20011221 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2002111524 A1 20020815 US 2001-21800 20011212 PRAI US 2000-258583P Ρ 20001228 US 2001-21800 Α 20011212 RE.CNT 3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 65 CAPLUS COPYRIGHT 2002 ACS L1

AN 2002:353568 CAPLUS

DN 136:357319

TI Low-sulfur gasoline blending stock

```
- Stuntz, Gordon Frederick; Welch, Robert Charles William; Halbert, Thomas
 PA
      Exxonmobil Research and Engineering Company, USA
 SO
     PCT Int. Appl., 37 pp.
      CODEN: PIXXD2
      Patent
 LA
      English
 FAN.CNT 1
      PATENT NO.
                       KIND DATE
                                            APPLICATION NO. DATE
      ----
                            _____
                                             -----
 PΙ
      WO 2002036718
                       A1
                             20020510
                                            WO 2001-US47318 20011030
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      US 2002084211
                                           US 2001-977000 20011012
                       A1 20020704
PRAI US 2000-245281P
                      P
                             20001102
     US 2001-977000
                       Α
                             20011012
              THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 7
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 3 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     2002:190999 CAPLUS
     Sulfur reduction of naphtha with membrane technology
TI
     White, L. S.; Lesemann, Markus
ΑU
     Membranes R&D, Grace-Davison, Columbia, MD, 21044, USA
CS
SO
     Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United
     States, April 7-11, 2002 (2002), PETR-015 Publisher: American Chemical
     Society, Washington, D. C.
     CODEN: 69CKQP
DT
     Conference; Meeting Abstract
LA
     English
     ANSWER 4 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     2002:189475 CAPLUS
     Sulfur analysis in fuels by ASTM D 5453 - The analyst's perspective
TI
AII
     Myers, Lisa L.; Heald, Randall L.; Hammond, Melody A.
     Phillips Research Center, Phillips Petroleum Company, Bartlesville, OK,
     74004, USA
SO
     Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United
     States, April 7-11, 2002 (2002), IEC-202 Publisher: American Chemical
     Society, Washington, D. C.
     CODEN: 69CKQP
DT
     Conference; Meeting Abstract
LA
     English
T.1
     ANSWER 5 OF 65 CAPLUS COPYRIGHT 2002 ACS
     2001:862736 CAPLUS
AN
DN
     136:234346
ΤI
     Refinery hydrogen management for clean fuels production
AU
     Hallale, N.; Liu, F.
CS
     Advanced Process Design, Aspen Tech Ltd., Warrington, Cheshire, WA3 7RB,
SO
     Advances in Environmental Research (2001), 6(1), 81-98
     CODEN: AERDDP; ISSN: 1093-0191
     Elsevier Science Ltd.
PB
DT
     Journal
     English
LA
RE.CNT 18
              THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L1
     ANSWER 6 OF 65 CAPLUS COPYRIGHT 2002 ACS
```

2001:510153 CAPLUS

135:244688

AN DN

```
. Canadian refinery starts up first-of-kind gasoline desulfurization unit
     Gardner, Rob; Schwarz, Eric A.; Rock, Kerry L.
ΑŲ
     Irving Oil Ltd., Saint John, NB, Can.
CS
    Oil & Gas Journal (2001), 99(25), 54-58
SO
     CODEN: OIGJAV; ISSN: 0030-1388
     PennWell Publishing Co.
PB
DT
     Journal
LΑ
     English
1.1
     ANSWER 7 OF 65 CAPLUS COPYRIGHT 2002 ACS
     2001:331194 CAPLUS
AN
     134:328917
DN
     Mild hydrotreating/extraction process for low sulfur
ΤI
IN
     Jossens, Lawrence W.; Munson, Curtis L.
     Chevron U.S.A., Inc., USA
PA
SO
     U.S., 10 pp.
     CODEN: USXXAM
DT
     Patent
LA
    English
FAN.CNT 2
                                         APPLICATION NO. DATE
     PATENT NO. KIND DATE
     US 6228254 B1 20010508
                                         US 1999-330762 19990611
     US 2001020596
                                          US 2001-826529 20010403
                     A1 20010913
PRAI US 1999-330762 A2 19990611
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 8 OF 65 CAPLUS COPYRIGHT 2002 ACS
T.1
     2001:228990 CAPLUS
AN
DN
     134:239973
     Gasoline sulfur reduction in fluid catalytic cracking
ΤI
     Roberie, Terry G.; Kumar, Ranjit; Ziebarth, Michael S.; Cheng, Wu-Cheng;
IN
     Zhao, Xinjin; Bhore, Nazeer
PΑ
     W. R. Grace & Co.-Conn., USA
     PCT Int. Appl., 29 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 2
                                    APPLICATION NO. DATE
     PATENT NO. KIND DATE
                           -----
                                           _____
     -------
                      ----
                                      WO 2000-US25533 20000918
     WO 2001021732 A1 20010329
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                        BR 2000-14102
EP 2000-965111
                     Α
                            20020507
                                                            20000918
     BR 2000014102
                            20020807
                                                            20000918
     EP 1228167
                      A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
                     Α
PRAI US 1999-399637
                            19990920
     US 2000-649627
                       Α
                            20000828
                     W
     WO 2000-US25533
                            20000918
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 9 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     2001:176127 CAPLUS
DN
     134:254412
     Exploiting synergy between FCC and feed pretreating units to improve
TI
     refinery margins and produce low-sulfur fuels
ΑU
     Maddox, G. R.; Shorey, S. W.; Lomas, D. A.; Keesom, W. H.
```

```
· UOP Limited, Guildford, UK
     Petroleum and Coal (1999), 41(3-4), 138-147
SO
     CODEN: PCOAFI; ISSN: 1335-1141
PR
    Research Institute of Petroleum and Hydrocarbon Gases
DT
     Journal
     English
LA
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 2
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L1
     ANSWER 10 OF 65 CAPLUS COPYRIGHT 2002 ACS
AN
     2001:149832 CAPLUS
DN
     134:224804
     NiW/.gamma.-Al203 catalysts prepared by modified equilibrium deposition
ΤI
     filtration (MEDF) and non-dry impregnation (NDI). Characterization and
     catalytic activity evaluation for the production of low
     sulfur gasoline in a HDS pilot plant
     Kordulis, C.; Lappas, A. A.; Fountzoula, C.; Drakaki, K.; Lycourghiotis,
ΑU
     A.; Vasalos, I. A.
CS
     Department of Chemistry, University of Patras and Institute of Chemical
     Engineering & High Temperature Chemical Processes (ICE/HT), Patras, GR-265
     00, Greece
     Applied Catalysis, A: General (2001), 209(1,2), 85-95
SO
     CODEN: ACAGE4; ISSN: 0926-860X
PΒ
     Elsevier Science B.V.
     Journal
DT
LΑ
     English
              THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 44
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 11 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2001:133689 CAPLUS
ΑN
DN
     134:180930
     Multistep hydrogenation-hydroprocessing-hydrodesulfurization for manuf. of
ΤI
     low-sulfur gasoline and naphtha
     Didillon, Blaise; Uzio, Denis; Marchal, Nathalie
IN
PA
     Institut Francais du Petrole, Fr.
SO
     Eur. Pat. Appl., 18 pp.
     CODEN: EPXXDW
DT
     Patent
LΑ
     French
FAN.CNT 1
                                          APPLICATION NO. DATE
     PATENT NO.
                 KIND DATE
                      ----
     --------------
                           _____
                                          -----
                     A1 20010221
     EP 1077247
                                         EP 2000-401559
                                                           20000602
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                      A1
                            20010223
                                          FR 1999-10653
                                                            19990819
     FR 2797639
                      B1
     FR 2797639
                            20010921
     JP 2001055584
                      A2
                                          JP 2000-204009
                                                            20000705
                            20010227
PRAI FR 1999-10653
                      Α
                            19990819
RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 12 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2001:118874 CAPLUS
AN
DN
     134:284884
     Control of air pollution from new motor vehicles: heavy-duty engine and
TI
     vehicle standards and highway diesel fuel sulfur control requirements
ΑU
     Borushko, Margaret
     U.S. EPA, National Vehicle and Fuel Emissions Laboratory, Ann Arbor, MI,
CS
     48105, USA
     Federal Register (2001), 66(12, Bk. 2), 5001-5193, 18 Jan 2001
SO
     CODEN: FEREAC; ISSN: 0097-6326
PB
     Superintendent of Documents
DT
     Journal
LA
     English
     ANSWER 13 OF 65 CAPLUS COPYRIGHT 2002 ACS
T.1
AN
     2000:900740 CAPLUS
```

```
DN
   134:58940
     Adsorption process for producing ultra low sulfur hydrocarbon streams
TI
     Kaul, Bal Krishan
IN
    Exxonmobil Research and Engineering Company, USA
PA
     PCT Int. Appl., 14 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                   KIND DATE
                                        APPLICATION NO. DATE
     PATENT NO.
     ______
                    ____
                          -----
     WO 2000077124 A1
                                         WO 2000-US15261 20000602
ΡI
                           20001221
        W: CA, CN, IN, JP, NO, RU
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                         EP 2000-942666
                                                          20000602
                           20020410
     EP 1194504
                      A1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                                         NO 2001-5927
                                                          20011204
     NO 2001005927
                           20011204
                    Α
PRAI US 1999-138687P
                      Р
                           19990611
     WO 2000-US15261
                    W
                           20000602
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 4
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 14 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2000:897169 CAPLUS
AN
тT
     BP Amoco to introduce low sulfur gasoline
ΑU
     Am. Ceram. Soc. Bull. (2000), 79(12), 12
SO
     CODEN: ACSBA7; ISSN: 0002-7812
PB
     American Ceramic Society
     Journal; News Announcement
DT
LA
     English
     ANSWER 15 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     2000:608440 CAPLUS
DN
     133:195803
     Two-step hydrodesulfurization of cracked naphtha for production of
TI
     low-sulfur gasoline
     Didillon, Blaise; Uzio, Denis; Marchal, Nathalie
IN
     Institut Francais Du Petrole, Fr.
PA
SO
     Eur. Pat. Appl., 16 pp.
     CODEN: EPXXDW
DT
     Patent
     French
LΑ
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
                          -----
                                          _____
                                                          _____
     -----
                                        EP 2000-400200
     EP 1031622 A1 20000830
                                                          20000126
PΙ
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     FR 2790000 A1 20000825
                                         FR 1999-2336
                                                          19990224
                      B1
                           20010413
     FR 2790000
                     Α
     KR 2000058095
                           20000925
                                         KR 2000-7748
                                                          20000218
                     A2
     JP 2000239668
                           20000905
                                         JP 2000-47191
                                                          20000224
                     Α
                           19990224
PRAI FR 1999-2336
RE.CNT 4
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 16 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2000:517011 CAPLUS
AN
     133:179986
DN
     Getting sulfur on target
TI
     Halbert, Thomas R.; Brignac, Garland B.; Greeley, John P.; Demmin, Richard
ΑU
     A.; Roundtree, Eugene M.
     ExxonMobil Process Research Laboratories, USA
CS
     Hydrocarbon Engineering (2000), 5(6), 31-34, 36
SO
     CODEN: HYENF5
     Palladian Publications Ltd
PΒ
```

```
DT Journal
   English
LA
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 5
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 17 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2000:424209 CAPLUS
AN
     133:76244
DN
     Improve reforming catalyst performance
ΤI
     Senn, Dwayne R.; Lin, Fan-Nan; Wuggazer, Tom
ΑU
     Phillips Petroleum Company, Bartlesville, OK, USA
CS
     World Refining (2000), 10(4), 48-49
CODEN: WOREF2; ISSN: 1524-9840
SO
     Phillips International, Inc.
PB
DT
     Journal
     English
LΑ
     ANSWER 18 OF 65 CAPLUS COPYRIGHT 2002 ACS
T.1
     2000:351611 CAPLUS
AN
DN
     132:350029
     Desulfurization of olefinic gasoline with a dual functional catalyst at
ΤI
     low pressure
     Fletcher, David Lee; Hilbert, Timothy Lee; Shih, Stuart Shan-San
TN
     Mobil Oil Corporation, USA
PΑ
     PCT Int. Appl., 21 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                            APPLICATION NO. DATE
     PATENT NO. KIND DATE
                                            _____
                             _____
      _____
                       _ _ _ _
                                           WO 1999-US24976 19991025
     WO 2000029509 A1
                             20000525
PΤ
         W: CA, JP, SG
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE
                                             CA 1999-2318061 19991025
                             20000525
     EP 1047753
                        AA
                                             EP 1999-958671 19991025
                      A1 20001102
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
                             19981116
PRAI US 1998-192683
                        Α
      WO 1999-US24976 W 19991025
              THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 10
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 19 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
      2000:351239 CAPLUS
AN
DN
      132:350027
      Process for the production of low sulfur gasolines
 ΤI
      Didillon, Blaise; Uzio, Denis; Nocca, Jean-luc; Cosyns, Jean
 IN
      Institut Francais Du Petrole, Fr.
 PA
      Eur. Pat. Appl., 13 pp.
 SO
      CODEN: EPXXDW
 DT
      Patent
 LA
      French
 FAN.CNT 1
                                           APPLICATION NO. DATE
      PATENT NO. KIND DATE
                                             _____
                       ____
      ______
                                                               19991109
                                            EP 1999-402792
      EP 1002853 A1 20000524
 PΙ
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
 FR 2785908 A1 20000519 FR 1998-14480
KR 2000035520 A 20000626 KR 1999-51003
CN 1253993 A 20000524 CN 1999-124834
JP 2000160169 A2 20000613 JP 1999-328071
US 6334948 B1 20020101 US 1999-443152

PRAI FR 1998-14480 A 19981118
                                                               19981118
                                                               19991117
                                                               19991118
                                                               19991118
                                                               19991118
              THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE.CNT 7
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

```
. ANSWER 20 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2000:330726 CAPLUS
AN
     Biodesulfurization of gasoline: An assessment of technical and economic
ΤI
    feasibility and outline of R&D roadmap toward commercialization.
    Atlas, R. M.; Boron, D. J.; Deever, W. R.; Johnson, A. R.; McFarland, B.
ΑU
     L.; Meyer, J. A.
     Biology Dept, University of Louisville, Louisville, KY, 40292, USA
CS
     Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March
SO
     26-30, 2000 (2000), IEC-269 Publisher: American Chemical Society,
     Washington, D. C.
     CODEN: 69CLAC
     Conference; Meeting Abstract
DΤ
     English
LA
     ANSWER 21 OF 65 CAPLUS COPYRIGHT 2002 ACS
T.1
     2000:263659 CAPLUS
AN
DN
     132:336566
     Produce low sulfur gasoline via FCC feed
ΤI
     pretreatment
     Bavaro, Vito
ΑU
     Criterion Catalysts, Houston, TX, USA
CS
     World Refining (2000), 10(2), 30,32,34-37
CODEN: WOREF2; ISSN: 1524-9840
SO
     Phillips International, Inc.
PB
     Journal; General Review
DT
     English
LΑ
              THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 9
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 22 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     2000:201052 CAPLUS
AN
     132:210069
DN
     Deep desulfurization of FCC gasoline at low temperatures to maximize
TI
     octane-barrel value
IN
     Shih, Stuart S.
     Mobil Oil Corporation, USA
PΑ
     U.S., 8 pp.
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 1
                                          APPLICATION NO. DATE
     PATENT NO. KIND DATE
                                           _____
                      ____
      _____
                                           US 1998-192650
                                                            19981116
     US 6042719
                      A 20000328
PΙ
     WO 2000029510 A1 20000525
                                           WO 1999-US24848 19991025
         W: CA, JP, SG
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                                          EP 1999-972245
                                                           19991025
                            20011128
     EP 1157082
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
 PRAI US 1998-192650
                            19981116
                       Α
     WO 1999-US24848
                       W
                            19991025
              THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE.CNT 17
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 23 OF 65 CAPLUS COPYRIGHT 2002 ACS
 L1
      2000:12344 CAPLUS
 AN
      132:110207
 DN
      Catalysts in the refining industry
 тT
      Clause, Olivier; Mabilon, G.
 ΑIJ
      Division Cinetique et Catalyse, IFP, Rueil-Malmaison, Fr.
 CS
      Petrole et Techniques (1999), 422, 15-21
 SO
      CODEN: PETEDX; ISSN: 0152-5425
      Association Française des Techniciens et Professionnels du Petrole
 PB
      Journal; General Review
 DТ
      French
 LΑ
               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE.CNT 4
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

```
ANSWER 24 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1999:803696 CAPLUS
AN
   . Low-sulfur gasoline facility planned
ΤI
ΑU
     Chem. Eng. Prog. (1999), 95(12), 20
SO
     CODEN: CEPRA8; ISSN: 0360-7275
     American Institute of Chemical Engineers
PΒ
     Journal; News Announcement
DT
     English
LΑ
     ANSWER 25 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1999:418659 CAPLUS
ΑN
     131:75774
DN
     Consider latest low cost breakthrough for low sulfur
TI
     gasoline
     Irvine, R.; Benson, B.; Varraveto, D.; Frye, R.
ΑU
     Black & Veatch Pritchard Inc., Overland Park, KS, USA
CS
     World Refining (1999), (Sulfur 2000), 18-20, 22, 24, 26
SO
     CODEN: WOREF2
     Hart Publications, Inc.
PB
     Journal; General Review
DT
     English
LΑ
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 4
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 26 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1999:405425 CAPLUS
ΑN
     131:60781
DN
     Motor fuels in 21st century. Superlow-sulfur gasoline and diesel
TI
     Chen, Huimin
ΑU
     China Petrochemicals Industry Group Co., Beijing, 100029, Peop. Rep. China
CS
     Lianyou Sheji (1999), 29(5), 8-12
SO
     CODEN: LISHEM; ISSN: 1002-106X
     Lianyou Sheji Bianjibu
PB
     Journal; General Review
DT
     Chinese
LΑ
     ANSWER 27 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1999:90454 CAPLUS
 AN
 DN
     130:127331
     Production of BTX and gasoline blending stock from cracker and coker
 ΤI
     naphthas
     Angevine, Philip Jay; Timken, Hye Kyung Cho
 IN
     Mobil Oil Corporation, USA
 PA
     Eur. Pat. Appl., 21 pp.
 SO
      CODEN: EPXXDW
 DT
     Patent
     English
 LA
 FAN.CNT 1
                                           APPLICATION NO. DATE
      PATENT NO. KIND DATE
                                            _____
      -----
                            _ _ _ _ _ _ _
                      _ _ _ _
                                          EP 1997-305631 19970725
      EP 893487 A1 19990127
 PΙ
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
                                            BR 1997-4308
                                                            19970811
                            19990525
      BR 9704308
                      Α
                             19970725
 PRAI EP 1997-305631
               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE.CNT 4
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 28 OF 65 CAPLUS COPYRIGHT 2002 ACS
 L1
      1999:34973 CAPLUS
 AN
      130:97904
 DN
      Fatty acid amide lubricity aids and related methods for improvement of
 ΤI
      lubricity of fuels
      Gentry, David R.; Stehlin, Mark P.; Weers, Jerry J.
 IN
      Baker Hughes, Inc., USA
 PA
      PCT Int. Appl., 25 pp.
 SO
      CODEN: PIXXD2
```

```
LA
    English
FAN.CNT 1
                KIND DATE
                                       APPLICATION NO. DATE
   PATENT NO.
    ______
                    ____
                                        -----
    WO 9900467 A1 19990107 WO 1998-US13266 19980626
PΙ
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, ML, MR, NE, SN, TD, TG
                                       AU 1998-81690
                    A1 19990119
                                                         19980626
     AU 9881690
                                        JP 1999-505746 19980626
                     T2
                          20011127
     JP 2001524161
                                        TW 1998-87110484 19981223
                     В
     TW 409143
                          20001021
PRAI US 1997-883634
                     Α
                          19970626
                    W
     WO 1998-US13266
                          19980626
             THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 9
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 29 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     1999:15680 CAPLUS
DN
     130:143261
     Exhaust emissions of a vehicle with a gasoline direct-injection engine
ΤI
     Cole, Roger L.; Poola, B.; Sekar, Raj
ΑU
     Argonne National Laboratory, USA
CS
     Society of Automotive Engineers, [Special Publication] SP (1998),
SO
     SP-1399 (Direct Injection: Engines, Emissions, and Aftertreatment), 67-77
     CODEN: SAESA2; ISSN: 0099-5908
     Society of Automotive Engineers
PR
DT
     Journal
     English
LA
             THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 6
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 30 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1998:790646 CAPLUS
AN
     130:27081
DN
     Hydrocarbon upgrading process
TI
     Collins, Nick Allen; Teitman, Gerald Joseph; Durand, Paul Pierce; Hilbert,
IN
     Timothy Lee; Trewella, Jeffrey Charles
     Mobil Oil Corp., USA
PΑ
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO. KIND DATE
                                         APPLICATION NO. DATE
                                         -----
     -----
                                       WO 1998-US9580
     WO 9853030 A1 19981126
                                                         19980512
PΙ
         W: BR, CA, CN, CZ, KR, MX, PL, RU, SG
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                      A1 20000308
                                        EP 1998-921115
                                                         19980512
     EP 983329
         R: AT, DE, ES, FR, GB, IT, NL, PT
                                    BR 1998-9455
     BR 9809455 A 20000620
                                                         19980512
                          19970523
                    Α
PRAI US 1997-862238
                          19980512
                    W
     WO 1998-US9580
             THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 1
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 31 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1998:790645 CAPLUS
AN
DN
     Benzene conversion in improved gasoline upgrading process
TI
     Borghard, William Stern; Collins, Nick Allen; Durand, Paul Pierce;
IN
     Hilbert, Timothy Lee; Trewella, Jeffrey Charles
```

DT

. Patent

```
SO
    PCT Int. Appl., 27 pp.
    CODEN: PIXXD2
   . Patent
DT
LΑ
    English
FAN.CNT 1
                                       APPLICATION NO. DATE
    PATENT NO. KIND DATE
                    ----
     ------
    WO 9853029 A1 19981126
                                      WO 1998-US9581 19980512
PΙ
        W: BR, CA, CN, CZ, KR, MX, PL, RU, SG
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                                        19970523
                                        US 1997-862229
    US 5865987
                     Α
                          19990202
                   A1
                                       EP 1998-920370
                                                        19980512
                          20000329
    EP 988356
        R: AT, DE, ES, FR, GB, IT, NL, PT
               A
                                                        19980512
                          20000620
                                      BR 1998-9454
    BR 9809454
                          19970523
PRAI US 1997-862229
                     Α
                          19950707
    US 1995-499239
                     В1
                   W
    WO 1998-US9581
                          19980512
             THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 1
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 32 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
    1998:484061 CAPLUS
DN
    129:191226
    Biocatalytic sulfur removal from fuels: applicability for producing
TI
    low sulfur gasoline
    McFarland, Beverly L.; Boron, David J.; Deever, William; Meyer, J. A.;
ΑU
    Johnson, Axel R.; Atlas, Ronald M.
CS
    MicroBioTech Consulting, Davis, CA, 95616-2718, USA
    Critical Reviews in Microbiology (1998), 24(2), 99-147
SO
    CODEN: CRVMAC; ISSN: 1040-841X
    CRC Press LLC
PB
    Journal; General Review
DT
LA
    English
    ANSWER 33 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1997:735816 CAPLUS
AN
    128:24786
DN
    Production of benzene, toluene, and xylene (BTX) from FCC naphtha
TI
    Timken, Hye Kyung C.; Angevine, Philip J.
IN
PA
    USA
so
    U.S., 14 pp.
    CODEN: USXXAM
DT
    Patent
    English
LΑ
FAN.CNT 1
                                        APPLICATION NO. DATE
    PATENT NO.
                    KIND DATE
                    ____
                                        _____
     ______
                                        US 1995-502733
                    Α
                                                        19950714
                          19971111
PΙ
    US 5685972
                    B2
                                        AU 1997-28794
                                                        19970722
                          20010322
    AU 731035
                    A1 19990204
    AU 9728794
PRAI US 1995-502733 A
                          19950714
    ANSWER 34 OF 65 CAPLUS COPYRIGHT 2002 ACS
Ь1
    1997:475034 CAPLUS
AN
DN
    127:111088
TΙ
    Naphtha upgrading process
    Timken, Hye Kyung C.; Riedinger, Sherri L.
IN
    Mobil Oil Corporation, USA
PA
    U.S., 11 pp., Cont.-in-part of U.S. 5,411,658.
SO
     CODEN: USXXAM
    Patent
DT
    English
LА
FAN.CNT 31
    PATENT NO.
                                        APPLICATION NO. DATE
                   KIND DATE
                                        -----
     _____
                    ----
                                                        -----
                                        US 1995-427512 19950424
    US 5643441
                    A 19970701
PΙ
     US 5346609
                    Α
                          19940913
                                        US 1991-745311
                                                        19910815
```

· Mobil Oil Corp., USA

```
A 19950425
A 19950509
   · US 5409596
                                     US 1992-891124 19920601
    US 5413696
                                      US 1993-133403 19931008
    US 5411658
                        19950502
                   Α
                                      US 1994-303908 19940909
                    Α
                         19960319
   US 5500108
                                       CA 1996-2219137 19960214
                         19961003
                    AA
    CA 2219137
                                       WO 1996-US1925
                                                       19960214
                   A1
                         19961003
    WO 9630463
        W: CA, KR, MX
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                      EP 1996-905478 19960214
                          19980121
    EP 819157
                   A1
                          20020123
                    B1
    EP 819157
        R: DE, FR, GB, IT
PRAI US 1991-745311
                   A2
                          19910815
                    A2
    US 1992-850106
                         19920312
    US 1992-891124
                    A2
                         19920601
    US 1993-133403
                    A2
                         19931008
    US 1994-303908
                    A2
                          19940924
                     Α
                          19950424
    US 1995-427512
                     W
                          19960214
    WO 1996-US1925
    ANSWER 35 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1997:127982 CAPLUS
AN
DN
    126:174071
    Gasoline and reformate upgrading process
ΤI
    Collins, Nick A.; Harandi, Mohsen N.; Kondis, Edward F.; Owen, Hartley
TN
    Mobil Oil Corporation, USA
PΑ
    U.S., 12 pp., Cont.of U.S. Ser. No. 31, 446, abandoned.
SO
    CODEN: USXXAM
\mathbf{DT}
    Patent
    English
LA
FAN.CNT 1
    PATENT NO. KIND DATE
                                       APPLICATION NO. DATE
                                        _____
                    ____
                         _____
    ______
    US 5599439
                                        US 1994-322466
                          19970204
                                                        19941014
                     Α
PΙ
                          19930313
PRAI US 1993-31446
    ANSWER 36 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1996:694346 CAPLUS
ΑN
    125:304786
DN
    Naphtha upgrading process
ΤI
    Timken, Hye-Kyung Cho; Riedinger, Sherri Lynne
IN
    Mobil Oil Corporation, USA
PA
     PCT Int. Appl., 27 pp.
so
     CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 31
     PATENT NO. KIND DATE
                                      APPLICATION NO. DATE
                                        _____
                    ----
     -----
     WO 9630463 A1
                                        WO 1996-US1925
                                                        19960214
                          19961003
PΙ
        W: CA, KR, MX
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                   A 19970701 US 1995-427512
                                                        19950424
     US 5643441
    EP 819157
                          19980121
                                        EP 1996-905478
                                                        19960214
                     Α1
                    B1 20020123
     EP 819157
        R: DE, FR, GB, IT
PRAI US 1995-427512 A 19950324
                    A2
                         19910815
     US 1991-745311
     US 1992-850106 A2 19920312
     US 1992-891124 A2 19920601
     US 1993-133403 A2 19931008
                   A2 19940924
     US 1994-303908
                     W
                         19960214
     WO 1996-US1925
     ANSWER 37 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     1996:657533 CAPLUS
DN
     125:304635
     How will refiners meet mandates for low-sulfur
ΤI
     gasoline
ΑU
     Gonzalez, Rene G.
```

US 1992-850106

```
CS
   . USA
    Fuel Technology & Management (1996), 6(5), 22,24
SO
    CODEN: FTMAFH; ISSN: 1087-4003
   . Hart Publications, Inc.
PB
DT
    Journal
    English
LA
    ANSWER 38 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1996:342224 CAPLUS
AN
    125:14984
DN
    Gasoline upgrading process
TI
    Durand, Paul Pierce; Timken, Hye Kyung Cho
IN
    Mobil Oil Corporation, USA
PΑ
SO
    PCT Int. Appl., 30 pp.
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 31
                                       APPLICATION NO. DATE
                KIND DATE
    PATENT NO.
                                        -----
                    ____
                                                       -----
     _____
                          19960314
     WO 9607714 A1
                                        WO 1995-US10364 19950815
PΙ
        W: CA, FI, JP, KR, MX, NO, SG
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                       US 1994-303908 19940909
                          19960319
     US 5500108
                    Α
                                        EP 1995-929542
                                                        19950815
                          19970702
     EP 781315
                     Α1
     EP 781315
                         20011031
                    B1
        R: BE, DE, FR, GB, IT, NL, SE
                                                        19950815
                                        JP 1995-509508
     JP 10505127 T2
                          19980519
                                                        19970307
                                        NO 1997-1067
                     Α
                          19970307
     NO 9701067
                                                        19970307
                                        FI 1997-973
     FI 9700973
                          19970506
                     Α
                    Α
                         19940909
PRAI US 1994-303908
     US 1991-745311
                    A2 19910815
                    A2
     US 1992-850106
                          19920312
                    A2
     US 1992-891124
                          19920601
     US 1993-133403
                    A2
                          19931008
                    W
                          19950815
     WO 1995-US10364
     ANSWER 39 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1996:232064 CAPLUS
AN
DN
     124:265383
     Gasoline upgrading process
TI
     Durand, Paul P.; Timken, Hye K. C.
IN
     Mobil Oil Corp., USA
PA
     U.S., 15 pp., Cont.-in-part of U.S. 5, 411, 658.
SO
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 31
                                        APPLICATION NO. DATE
                   KIND DATE
     PATENT NO.
                                        _____
                    ____
                                        US 1994-303908
                                                        19940909
     US 5500108 A 19960319
PΙ
                  A 19940913
A 19950425
                                        US 1991-745311
                                                        19910815
     US 5346609
                                        US 1992-850106
                                                        19920312
     US 5409596
                                        US 1992-891124
                                                        19920601
                    A 19950509
     US 5413696
                    A 19950502
                                        US 1993-133403
                                                         19931008
     US 5411658
                         19970701
                                        US 1995-427512
                                                         19950424
                    Α
     US 5643441
                                        CA 1995-2198214
                                                        19950815
                     AA 19960314
     CA 2198214
                                        WO 1995-US10364 19950815
     WO 9607714
                     A1
                         19960314
         W: CA, FI, JP, KR, MX, NO, SG
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                       EP 1995-929542
                                                         19950815
                      A1 19970702
     EP 781315
                         20011031
                      B1
     EP 781315
         R: BE, DE, FR, GB, IT, NL, SE
                                         JP 1995-509508
                                                         19950815
     JP 10505127 T2 19980519
     NO 9701067
                    A
                          19970307
                                         NO 1997-1067
                                                         19970307
                                                         19970307
                    Α
                          19970506
                                         FI 1997-973
     FI 9700973
                          19910815
 PRAI US 1991-745311 A2
     US 1992-850106 A2
                           19920312
                      A2
                           19920601
     US 1992-891124
```

```
A2
                         19931008
   · US 1993-133403
    US 1994-303908
                    A2 19940924
                     W
    WO 1995-US10364
                         19950815
    ANSWER 40 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1995:733260 CAPLUS
    123:118121
    Gasoline upgrading process
    Chawla, Birbal; Mazzone, Dominick Nicholas; Sarli, Michael Sebastian;
    Shih, Stuart Shan-San; Timken, Hye Kyung C.
    Mobil Oil Corp., USA
    PCT Int. Appl., 37 pp.
    CODEN: PIXXD2
    Patent
    English
FAN.CNT 31
    PATENT NO. KIND DATE
                                      APPLICATION NO. DATE
                   ____
    -----
    WO 9510580 A1
                         19950420
                                      WO 1994-US10548 19940916
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                      US 1993-133403 19931008
                   Α
                         19950502
    US 5411658
                                       AU 1994-78753
                                                       19940916
    AU 9478753
                     A1
                         19950504
    AU 691202
                    B2
                         19980514
    EP 722479
                                       EP 1994-929833
                                                       19940916
                    A1
                         19960724
    EP 722479
                   В1
                         20020807
        R: BE, DE, FR, GB, IT, NL
    JP 09503814 T2
                                       JP 1994-511810 19940916
                         19970415
                    Α
PRAI US 1993-133403
                         19931008
    US 1991-745311
                    A2
                         19910815
    US 1992-850106
                    A2
                         19920312
    US 1992-891124
                    B2
                         19920601
    WO 1994-US10548
                    W
                         19940916
    ANSWER 41 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1995:630221 CAPLUS
    123:61091
    Two-stage hydrodesulfurization-upgrading of heavy naphthas over zeolite
    mixtures for manufacture of low-sulfur
    gasoline
    Fletcher, David L.; Sarli, Michael S.; Shih, Stuart S.
    Mobil Oil Corp., USA
    U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 850, 106.
    CODEN: USXXAM
    Patent
    English
FAN.CNT 31
                                       APPLICATION NO. DATE
    PATENT NO.
                    KIND DATE
                                        _____
     -----
                         _____
                                       US 1992-913326
    US 5413697
                         19950509
                                                        19920714
                     A
    US 5346609
                    Α
                         19940913
                                       US 1991-745311
                                                        19910815
                   A 19950425
A1 19930304
    US 5409596
                                       US 1992-850106
                                                        19920312
     WO 9304146
                                       WO 1992-US6537
                                                        19920805
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
     AU 9224652
                   A1
                                       AU 1992-24652
                                                        19920805
                        19930316
    AU 661863
                     B2
                          19950810
                    T2
                                        JP 1992-503932
                                                        19920805
     JP 06509830
                          19941102
     JP 2788348
                     B2
                          19980820
    EP 641375 B1
                                       EP 1992-918087
                                                        19920805
                          19950308
                         19971229
        R: BE, DE, FR, GB, IT, NL
PRAI US 1991-745311 A2 19910815
                    A2
     US 1992-850106
                          19920312
     US 1992-880373
                    Α
                          19920508
                    Α
     US 1992-891124
                          19920601
     US 1992-891134
                    Α
                          19920601
     US 1992-891248
                    Α
                          19920601
     US 1992-913326
                    Α
                          19920714
```

1.1

AN

DN

TI

IN

PΑ

SO

DT

LΑ

PΤ

L1

AN DN

ΤI

IN PA

SO

DT

LA

PΙ

```
Α
   · US 1992-915571
                          19920715
                     Α
    WO 1992-US6537
                          19920805
   ANSWER 42 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1995:607922 CAPLUS
    123:13495
    Gasoline upgrading catalyst for improved octane and yield
    Chawla, Birbal; Mazzone, Dominik N.; Sarli, Michael S.; Shih, Stuart S.;
    Timken, Hye Kyung C.
    Mobil Oil Corporation, USA
    U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 891,124, abandoned.
    CODEN: USXXAM
    Patent
    English
FAN.CNT 31
                 KIND DATE
                                        APPLICATION NO. DATE
    PATENT NO.
     _____
    US 5411658 A 19950502
                                       US 1993-133403 19931008
                  A 19940913
A 19950425
A 19950509
A 19960319
                                       US 1991-745311 19910815
    US 5346609
    US 5409596
                                       US 1992-850106 19920312
    US 5413696
                                       US 1992-891124
                                                         19920601
    US 5500108
                                       US 1994-303908 19940909
                                        CA 1994-2172708 19940916
    CA 2172708
                    AA 19950420
                A1 19950420
                                        WO 1994-US10548 19940916
    WO 9510580
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                         19950504
    AU 9478753 A1
                                       AU 1994-78753
                                                        19940916
    AU 691202
                     B2
                          19980514
    EP 722479
                                        EP 1994-929833
                     A1
                          19960724
                                                         19940916
    EP 722479
                    B1
                         20020807
        R: BE, DE, FR, GB, IT, NL
    JP 09503814 T2 19970415
US 5643441 A 19970701
                                        JP 1994-511810
                                                         19940916
                                        US 1995-427512 19950424
PRAI US 1991-745311
                         19910815
                    A2
    US 1992-850106
                    A2
                         19920312
    US 1992-891124
                   B2
                         19920601
                    A2
                         19931008
    US 1993-133403
    WO 1994-US10548 W
                          19940916
                   A2 19940924
    US 1994-303908
    ANSWER 43 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1995:605730 CAPLUS
    122:318430
    Hydrocarbon upgrading process
    Fletcher, David L.; Sarli, Michael S.; Shih, Stuart S.
    Mobil Oil Corporation, USA
    U.S., 17 pp. Cont.-in-part of U.S. 5,346,609.
    CODEN: USXXAM
    Patent
    English
FAN.CNT 31
                KIND DATE
                                        APPLICATION NO. DATE
    PATENT NO.
    US 5409596 A
US 5346609 A
US 5348641 A
US 5352354 A
US 5407559 A
US 5413696 A
US 5413697 A
    -----
                    _ _ _ _
                          _____
                                         ------
                                        US 1992-850106
                          19950425
                                                         19920312
                                        US 1991-745311
                          19940913
                                                         19910815
                                        US 1992-880373
                         19940920
                                                         19920508
                                        US 1992-891134
                          19941004
                                                         19920601
                                        US 1992-891248
                          19950418
                                                         19920601
                                        US 1992-891124
                          19950509
                                                         19920601
                                        US 1992-913326
                          19950509
                                                         19920714
                                        US 1992-915571
    US 5308471
                     Α
                          19940503
                                                         19920720
                   A1
                                        WO 1992-US6537
    WO 9304146
                          19930304
                                                         19920805
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
                A1
    AU 9224652
                          19930316
                                       AU 1992-24652
                                                         19920805
    AU 661863
                     B2
                          19950810
```

ANDN

TI

PA

DT

LΑ

L1

AN DN

TT

IN

PA

SO

DT

LA

PΙ

US 5290427

JP 2788348

JP 06509830

Α

T2

В2

19940301

19941102

19980820

US 1992-925007

JP 1992-503932

19920805

```
EP 1992-918087
                                                               19920805
                             19950308
    .EP 641375
                        A1
                        B1
                             19971229
     EP 641375
         R: BE, DE, FR, GB, IT, NL
                                                             19920805
                                             US 1992-925001
    _US 5413698
                      A 19950509
                                                             19920813
                                             US 1992-929544
     US 5298150
                             19940329
                                             US 1992-929543 19920813
                            19940705
     US 5326462
                        Α
                                             US 1992-929542 19920813
     US 5362376
                      A 19941108
                                            US 1992-963229 19921019
    US 5320742 A 19940614
US 5326463 A 19940705
US 5399258 A 19950321
US 5318690 A 19940607
US 5360532 A 19941101
US 5391288 A 19950221
US 5411658 A 19950502
US 5401389 A 19950328
US 5500108 A 19960319
US 5510016 A 19960423
US 5503734 A 19960402
US 5643441 A 19970701
US 1991-745311 A2 19910815
     US 5320742
                      A 19940614
                                            US 1992-967322 19921028
                                            US 1992-988492 19921210
                                                             19930107
                                            US 1993-1681
                                                             19930402
                                           US 1993-42189
                                           US 1993-74572
                                                              19930610
                                           US 1993-133403 19931008
                                           US 1993-133942 19931012
                                           US 1994-303908 19940909
                                            US 1994-303909 19940909
                                            US 1994-367670 19941230
                                            US 1995-427512 19950424
PRAI US 1991-745311 A2 19910815
US 1992-850106 A2 19920312
     US 1992-880373 A
                             19920508
     US 1992-891124 A
                             19920601
     US 1992-891134 A
                             19920601
     US 1992-891248 A
                            19920601
     US 1992-913326 A
                            19920714
                       Α
     US 1992-915571
                             19920715
     WO 1992-US6537
                       Α
                             19920805
     US 1992-949926 B1
                             19920924
     US 1992-961592
                       В2
                             19921015
     US 1993-133403
                        A2
                             19931008
     US 1994-303908
                       A2
                             19940924
     ANSWER 44 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     1995:599690 CAPLUS
DN
     123:36955
     Hydrocarbon upgrading process in gasoline production with increased octane
TΙ
     number
     Fletcher, David L.; Harandi, Mohsen N.; Sarli, Michael S.; Shih, Stuart S.
IN
PA
     Mobil Oil Corp., USA
     U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 31
                                             APPLICATION NO. DATE
     PATENT NO.
                       KIND DATE
                       _ _ _ _
                             _____
     ______
                                             US 1992-925001
                                                                19920805
     US 5413698
                        Α
                              19950509
PΙ
                       Α
                                             US 1991-745311
                              19940913
                                                                19910815
     US 5346609
                                             US 1992-850106 19920312
                       Α
                              19950425
     US 5409596
                      A2
A2
PRAI US 1991-745311
                              19910815
     US 1992-850106
                              19920312
     ANSWER 45 OF 65 CAPLUS COPYRIGHT 2002 ACS
T.1
     1995:591496 CAPLUS
ΔN
     122:318442
DN
     Gasoline upgrading process
ТT
IN
     Degnan, Thomas F.; Shih, Stuart S.
     Mobil Oil Corp., USA
PΑ
     U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 31
     PATENT NO.
                       KIND DATE
                                              APPLICATION NO.
                                              -----
     ______
                             _____
                        A
                                              US 1992-891248
                                                                19920601
     US 5407559
                              19950418
PΙ
```

US 5346609

US 5409596

Α

A

19940913

19950425

US 1991-745311

US 1992-850106

19910815

```
. WO 9304146
                          19930304
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
                                        AU 1992-24652
                                                        19920805
                          19930316
    AU 9224652
                    A1
                          19950810
    AU 661863
                     B2
                                                        19920805
                                        JP 1992-503932
                     T2
    JP 06509830
                          19941102
    JP 2788348
                     B2
                          19980820
                                        EP 1992-918087
                                                        19920805
    EP 641375
                     A1
                          19950308
                   B1
                          19971229
    EP 641375
        R: BE, DE, FR, GB, IT, NL
                   A2
PRAI US 1991-745311
                          19910815
    US 1992-850106
                     A2
                          19920312
    US 1992-880373
                     A
                          19920508
    US 1992-891124
                     Α
                          19920601
    US 1992-891134
                     Α
                          19920601
                     Α
                          19920601
    US 1992-891248
                     Α
                          19920714
    US 1992-913326
                          19920715
    US 1992-915571
                     Α
    WO 1992-US6537
                     Α
                          19920805
    ANSWER 46 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1995:591454 CAPLUS
AN
    122:318429
DN
    Gasoline-cycle oil upgrading process
TI
    Mazzone, Dominick N.; Tabak, Samual A.; Timken, Hye Kyung C.
IN
    Mobil Oil Corporation, USA
PΑ
    U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 891,124.
SO
    CODEN: USXXAM
DT
    Patent
    English
LA
FAN.CNT 31
    PATENT NO. KIND DATE
                                        APPLICATION NO.
                    ____
                                        _____
    -----
                                        US 1993-133942
                                                        19931012
    US 5401389 A
                          19950328
PΙ
                                        US 1991-745311
                   Α
                                                        19910815
                          19940913
    US 5346609
                   A
                                        US 1992-850106
                          19950425
                                                        19920312
    US 5409596
    US 5413696 A 19950509
WO 9510579 A1 19950420
                                        US 1992-891124
                                                        19920601
                                        WO 1994-US10704 19940921
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                A1 19950504
                                        AU 1994-78400 19940921
    AU 9478400
                    A2
                          19910815
PRAI US 1991-745311
    US 1992-850106 A2
                          19920312
    US 1992-891124 A2
                          19920601
                    Α
                          19931012
    US 1993-133942
                          19940921
                     W
    WO 1994-US10704
    ANSWER 47 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
    1995:589517 CAPLUS
DN
    122:318428
    Hydrocarbon upgrading process
TI
     Fletcher, David L.; Sarli, Michael S.; Shih, Stuart S.; McGovern, Stephen
IN
     J.; Diez, Douglas S.; Harandi, Mohsen N.; Hilbert, Timothy L.
PΑ
     Mobil Oil Corp., USA
     U.S., 13 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
     Patent
DТ
LΑ
     English
FAN.CNT 31
                                        APPLICATION NO.
                                                        DATE
                    KIND DATE
     PATENT NO.
                                        _____
                    ____
     _____
                                        US 1992-988492
                                                         19921210
                          19950321
     US 5399258
                    Α
PΙ
                    Α
                                        US 1991-745311
                                                         19910815
                          19940913
     US 5346609
     US 5409596
                                        US 1992-850106
                                                         19920312
                    Α
                         19950425
PRAI US 1991-745311
                    A2 19910815
                          19920312
     US 1992-850106
                   A2
     ANSWER 48 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1995:551140 CAPLUS
```

WO 1992-US6537

Α1

ΑN

```
.122:269858
ΤI
     Gasoline upgrading process
IN
     Timken, Hye K. C.
PA
    Mobil Oil Corp., USA
SO
     U.S., 13 pp.
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                   KIND DATE
                                        APPLICATION NO. DATE
     -----
                                         -----
                                        US 1993-104691 19930811
ΡI
     US 5397455 A 19950314
    ANSWER 49 OF 65 CAPLUS COPYRIGHT 2002 ACS
_{\rm L1}
AN
     1995:543599 CAPLUS
DN
     122:269855
TI
     Gasoline upgrading process involving hydrodesulfurization
IN
     Collins, Nick A.; Durand, Paul P.; Fletcher, David L.; Harandi, Mohsen N.;
     Kondis, Edward F.; Owen, Hartley; Sarli, Michael S.; Shih, Stuart S.
PA
     Mobil Oil Corp., USA
SO
     U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 961,592, abandoned.
     CODEN: USXXAM
DT
     Patent
LΑ
    English
FAN.CNT 31
    PATENT NO. KIND DATE
                                        APPLICATION NO. DATE
                                        -----
     -----
    US 5391288 A 19950221
US 5346609 A 19940913
US 5409596 A 19950425
                                       US 1993-74572 19930610
PI
                                        US 1991-745311 19910815
                                        US 1992-850106 19920312
PRAI US 1991-745311 A2 19910815
     US 1992-850106 A2 19920312
     US 1992-961592 B2 19921015
L1
   ANSWER 50 OF 65 CAPLUS COPYRIGHT 2002 ACS
AN
   1995:255540 CAPLUS
DN
    122:34969
TI
   Gasoline upgrading process using large crystal intermediate pore size
IN
    Shih, Stuart S.; Angevine, Philip J.
PA
    Mobil Oil Corp., USA
SO
    U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 850,106.
     CODEN: USXXAM
DT
    Patent
LΑ
    English
FAN.CNT 31
                                  APPLICATION NO. DATE
     PATENT NO. KIND DATE
     -------
    US 5362376 A 19941108
                                       US 1992-929542 19920813
US 5346609 A 19940913
US 5409596 A 19950425
PRAI US 1991-745311 A2 19910815
US 1992-850106 A2 19920312
                                       US 1991-745311 19910815
                                       US 1992-850106 19920312
    ANSWER 51 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
    1995:229383 CAPLUS
DN
    122:34966
ΤI
    Gasoline upgrading process
IN
    Fletcher, David L.; Mcgovern, Stephen J.; Sauer, John E.
PA
    Mobil Oil Corp., USA
SO
    U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 745,311.
    CODEN: USXXAM
DT
    Patent
    English
LΑ
FAN.CNT 31
    PATENT NO. KIND DATE
                                       APPLICATION NO. DATE
    US 5360532
    US 5360532 A 19941101
US 5346609 A 19940913
                                       US 1993-42189 19930402
                                       US 1991-745311 19910815
```

```
19920312
                                      US 1992-850106
                         19950425
   . US 5409596
                    Α
    WO 9422980
                   A1 19941013
                                       WO 1994-US2085
                                                       19940228
        W: AU, CA, FI, JP, NO
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                       AU 1994-63540 19940228
                   A1 19941024
    AU 9463540
                   A2
                         19910815
PRAI US 1991-745311
                    A2
                         19920312
    US 1992-850106
                    Α
                         19930402
    US 1993-42189
                    W
                        19940228
    WO 1994-US2085
    ANSWER 52 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
    1994:704447 CAPLUS
DN
    121:304447
ΤI
    Gasoline upgrading process
    Fletcher, David Lee; McGovern, Stephen James; Sauer, John Ernest
TN
    Mobil Oil Corp., USA
PΆ
    PCT Int. Appl., 43 pp.
    CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 31
                                       APPLICATION NO. DATE
                    KIND DATE
    PATENT NO.
                                       _____
                    _ _ _ _
                         _____
    -----
                                      WO 1994-US2085 19940228
    WO 9422980 A1 19941013
PT
        W: AU, CA, FI, JP, NO
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
               A 19941101
                                  US 1993-42189 19930402
    US 5360532
                                       AU 1994-63540
                                                       19940228
    AU 9463540
                     A1
                          19941024
                    Α
                          19930402
PRAI US 1993-42189
                    A2
    US 1991-745311
                          19910815
    US 1992-850106
                    A2
                          19920312
                    W
                          19940228
    WO 1994-US2085
    ANSWER 53 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1994:683403 CAPLUS
AN
    121:283403
DN
    Gasoline upgrading process using an acid catalyst after
TТ
    hydrodesulfurization
     Fletcher, David L.; Hilbert, Timothy L.; Mcgovern, Stephen J.; Sarli,
IN
    Michael S.; Shih, Stuart S.
    Mobil Oil Corp., 'USA
PA
     U.S., 13 pp. Cont.-in-part of U.S. Ser. No. 745,311.
SO
     CODEN: USXXAM
DТ
     Patent
     English
LA
FAN.CNT 31
     PATENT NO. KIND DATE
                                       APPLICATION NO. DATE
                    ----
                                        -----
     ______
    US 5352354 A 19941004
                                        US 1992-891134
                                                        19920601
PΙ
                                        US 1991-745311
                                                        19910815
                    A 19940913
     US 5346609
     US 5409596 A
WO 9304146 A1
                         19950425
                                        US 1992-850106
                                                        19920312
                    A1 19930304
                                        WO 1992-US6537
                                                        19920805
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
                                   AU 1992-24652
     AU 9224652 A1 19930316
                                                        19920805
                    B2
                         19950810
     AU 661863
                    T2 19941102
                                        JP 1992-503932
                                                        19920805
     JP 06509830
                    B2 19980820
     JP 2788348
                   A1 19950308
                                       EP 1992-918087
                                                        19920805
     EP 641375
                    B1 19971229
     EP 641375
        R: BE, DE, FR, GB, IT, NL
PRAI US 1991-745311 A2 19910815
                   A2 19920312
     US 1992-850106
                   A 19920508
     US 1992-880373
                   A 19920601
     US 1992-891124
     US 1992-891134 A 19920601
     US 1992-891248 A 19920601
US 1992-913326 A 19920714
                   Α
                          19920715
     US 1992-915571
```

```
ANSWER 54 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
   . 1994:659452 CAPLUS
    121:259452
DN
    Gasoline upgrading process
TI
    Shih, Stuart S.
IN
PΑ
    Mobil Oil Corporation, USA
    U.S., 8 pp. Cont.-in-part of U.S. Ser. No 850,106.
    CODEN: USXXAM
DT
    Patent
    English
LA
FAN.CNT 31
                                       APPLICATION NO. DATE
                KIND DATE
    PATENT NO.
    ______
                    ____
                         _____
                                       US 1992-880373 19920508
    US 5348641 A
                          19940920
PI
                                       US 1991-745311 19910815
    US 5346609
                    Α
                          19940913
               A
A1
                                       US 1992-850106
                          19950425
                                                       19920312
    US 5409596
                                       WO 1992-US6537 19920805
    WO 9304146
                        19930304
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
                                       AU 1992-24652 19920805
    AU 9224652
                          19930316
                    A1
    AU 661863
                          19950810
                     B2
                                        JP 1992-503932
                                                        19920805
    JP 06509830
                     T2
                          19941102
    JP 2788348
                    B2
                          19980820
    EP 641375 A1
EP 641375 B1
                                       EP 1992-918087 19920805
                          19950308
                          19971229
    EP 641375
        R: BE, DE, FR, GB, IT, NL
PRAI US 1991-745311 A2
                          19910815
    US 1992-850106 A2
                          19920312
    US 1992-880373 A
                          19920508
    US 1992-891124 A
                          19920601
    US 1992-891134 A
                          19920601
                    Α
                          19920601
    US 1992-891248
                    Α
                          19920714
     US 1992-913326
                     Α
                          19920715
     US 1992-915571
                     Α
                          19920805
     WO 1992-US6537
    ANSWER 55 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
    1994:513104 CAPLUS
AN
DN
     121:113104
     Gasoline upgrading process
TΙ
     Fletcher, David L.; Hilbert, Timothy L.; Sarli, Michael S.; Shih, Stuart
PA
     Mobil Oil Corp., USA
     U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 31
                                       APPLICATION NO. DATE
     PATENT NO. KIND DATE
                    ----
                                        _____
     _____
                                        US 1992-967322
                                                        19921028
     US 5326463 A 19940705
PΤ
                    A 19940913
                                        US 1991-745311
                                                        19910815
     US 5346609
                                        US 1992-850106
     US 5409596
WO 9410262
                   A 19950425
A1 19940511
                                                        19920312
                                        WO 1993-US10389 19931028
     WO 9410262
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                      AU 1994-55429 19931028
                 A1 19940524
     AU 9455429
PRAI US 1991-745311
                    A2
                          19910815
     US 1992-850106 A2 19920312
                    A 19921028
     US 1992-967322
                          19931028
     WO 1993-US10389 W
     ANSWER 56 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
AN
     1994:513103 CAPLUS
DN
     121:113103
     Gasoline upgrading process
TI
     Shih, Stuart S-S; Keville, Kathleen M.; Lissy, Daria N.
IN
```

```
Mobil Oil Corp., USA
PA
    U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
    Patent
LA
     English
FAN.CNT 31
                                         APPLICATION NO. DATE
                    KIND DATE
     PATENT NO.
                    ____
                                         _____
                                         US 1992-929543 19920813
     US 5326462
                    Α
                           19940705
ΡI
                                                          19910815
                     Α
                           19940913
                                         US 1991-745311
     US 5346609
                     Α
                                         US 1992-850106
                                                          19920312
     US 5409596
                           19950425
PRAI US 1991-745311
                     A2
                           19910815
                    A2
                         19920312
     US 1992-850106
     ANSWER 57 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1994:487372 CAPLUS
AN
DN
     121:87372
TI
     Gasoline upgrading process
     Fletcher, David L.; Hilbert, Timothy L.; Pappal, David A.; Rumsey, David
IN
     W.; Teitman, Gerald J.
     Mobil Oil Corporation, USA
PA
     U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
     Patent
     English
LA
FAN.CNT 31
                                         APPLICATION NO. DATE
                     KIND DATE
     PATENT NO.
     ______
                     ____
                          _____
                                         US 1992-963229 19921019
     US 5320742
                      A
                           19940614
PΙ
                                                          19910815
                                         US 1991-745311
     US 5346609
                     Α
                           19940913
                                         US 1992-850106
                                                          19920312
                     Α
                           19950425
     US 5409596
                                         CA 1993-2145530 19931019
                      AA
                           19940428
     CA 2145530
                     A1
                                         WO 1993-US9956
                                                          19931019
                           19940428
     WO 9409090
         W: AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                         AU 1994-54069
                                                          19931019
                      A1
                           19940509
     AU 9454069
                      В2
                           19960502
     AU 668446
                                         EP 1993-924351
                                                          19931019
                      A1
                           19950802
     EP 664827
                     B1
                           19990331
     EP 664827
         R: BE, DE, FR, GB, IT, NL
                    T2
                                         JP 1993-510332
                                                          19931019
     JP 08502533
                           19960319
PRAI US 1991-745311
                      A2
                           19910815
                           19920312
     US 1992-850106
                      Α2
                           19921019
     US 1992-963229
                      Α
                      W
                           19931019
     WO 1993-US9956
     ANSWER 58 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1994:461284 CAPLUS
AN
     121:61284
DN
     Gasoline upgrading process
TI
     Fletcher, David L.; Hilbert, Timothy L.; McGovern, Stephen J.; Sauer, John
IN
     Ε.
PΑ
     Mobil Oil Corp., USA
     U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
     Patent
DT
LA
     English
FAN.CNT 31
                                          APPLICATION NO.
                                                          DATE
                     KIND DATE
     PATENT NO.
                      _ _ _ _
                           _____
     ______
     US 5318690
                                          US 1993-1681
                                                          19930107
                      Α
                           19940607
PΙ
                                          US 1991-745311
                      Α
                           19940913
                                                          19910815
     US 5346609
                                          US 1992-850106
                                                          19920312
     US 5409596
                      Α
                           19950425
                                          WO 1994-US203
                                                          19940106
                      A1
                           19940721
     WO 9416036
         W: AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                     A1 19940815
                                          AU 1994-60222
                                                          19940106
     AU 9460222
                           19910815
 PRAI US 1991-745311
                      Α2
     US 1992-850106
                      A2
                           19920312
```

```
. US 1993-1681
                   Α
                        19930107
    WO 1994-US203
                        19940106
L1 , ANSWER 59 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1994:438996 CAPLUS
    121:38996
    Hydrocarbon upgrading process
    Apelian, Minas R.; Fletcher, David L.; Sarli, Michael S.; Shih, Stuart S.
    Mobil Oil Corp., USA
    U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 850,106.
    CODEN: USXXAM
    Patent
    English
FAN.CNT 31
                                     APPLICATION NO. DATE
    PATENT NO. KIND DATE
                                     -----
    US 5308471 A 19940503
                                     US 1992-915571 19920720
                  A 19940913
                                     US 1991-745311 19910815
    US 5346609
    US 5409596
                   Α
                       19950425
                                     US 1992-850106 19920312
    WO 9304146 A1 19930304
                                     WO 1992-US6537 19920805
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
    AU 9224652 A1
AU 661863 B2
                                    AU 1992-24652 19920805
                        19930316
                        19950810
                                     JP 1992-503932 19920805
    JP 06509830
                   T2
                        19941102
    JP 2788348
                  B2
                        19980820
                                     EP 1992-918087 19920805
    EP 641375
                   A1
                        19950308
    EP 641375
                   B1
                        19971229
       R: BE, DE, FR, GB, IT, NL
PRAI US 1991-745311 A2
                        19910815
    US 1992-850106 A2
                        19920312
    US 1992-880373 A
                        19920508
    US 1992-891124 A
                        19920601
    US 1992-891134 A
                       19920601
    US 1992-891248 A
                       19920601
    US 1992-913326 A
                       19920714
    US 1992-915571 A
                       19920715
    WO 1992-US6537 A 19920805
    ANSWER 60 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1994:413654 CAPLUS
    121:13654
    Gasoline upgrading process
    Fletcher, David Lee; Hilbert, Timothy Lee; Sarli, Michael Sebastian; Shih,
    Stuart Shan San
    Mobil Oil Corp., USA
    PCT Int. Appl., 29 pp.
    CODEN: PIXXD2
    Patent
    English
FAN.CNT 31
    PATENT NO. KIND DATE
                                     APPLICATION NO. DATE
                   ____
                                      _____
    WO 9410262 A1
                                     WO 1993-US10389 19931028
                        19940511
        W: AU, CA, JP
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                  A 19940705 US 1992-967322 19921028
    US 5326463
                                     AU 1994-55429
                                                     19931028
    AU 9455429
                        19940524
                   A1
PRAI US 1992-967322
                   Α
                        19921028
    US 1991-745311
                   A2 19910815
    US 1992-850106 A2
                        19920312
    WO 1993-US10389 W
                        19931028
    ANSWER 61 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1994:275184 CAPLUS
AN
    120:275184
DN
    Gasoline upgrading process
    Fletcher, David L.; Sarli, Michael S.; Shih, Stuart S. S.; Keville,
```

AN

DN

TI

IN PΑ

SO

DT

LA

PI

L1

AN DN

TΤ

IN

PA

SO

DT

ĽΑ

PΙ

L1

TI

IN

Kathleen M.; Lissy, Daria N.

```
. Mobil Oil Corp., USA
    U.S., 11 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
   , Patent
DT
    English
LA
FAN.CNT 31
                                         APPLICATION NO. DATE
                 KIND DATE
     PATENT NO.
                   ----
                                         ______
                                         US 1992-929544 19920813
     US 5298150
                    Α
                           19940329
PΙ
                                         US 1991-745311 19910815
     US 5346609
                     Α
                           19940913
    US 5409596
                                         US 1992-850106
                                                         19920312
                     A 19950425
                    A2 19910815
PRAI US 1991-745311
     US 1992-850106 A2 19920312
     ANSWER 62 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1994:222196 CAPLUS
AN
DN
     120:222196
TI
     Gasoline upgrading process
     Fletcher, David L.; Hilbert, Timothy L.; Sarli, Michael S.; Shih, Stuart
IN
PA
     Mobil Oil Corp., USA
     U.S., 16 pp. Cont.-in-part of U.S. Ser. No. 850,106.
SO
     CODEN: USXXAM
DT
     Patent
     English
LΑ
FAN.CNT 31
                KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
     _____
                     ----
                          -----
                     Α
                                         US 1992-925007 19920805
     US 5290427
                           19940301
                                         US 1991-745311 19910815
                     Α
     US 5346609
                           19940913
                     Α
                                         US 1992-850106 19920312
     US 5409596
                           19950425
                         19910815
PRAI US 1991-745311
                     A2
                    A2 19920312
     US 1992-850106
     ANSWER 63 OF 65 CAPLUS COPYRIGHT 2002 ACS
L1
     1993:452655 CAPLUS
AN
DN
     119:52655
     Hydrocarbon upgrading process
TI
     Apelian, Minas Robert; Collins, Nick Allen; Degnan, Thomas Francis, Jr.;
IN
     Fletcher, David Lee; Harandi, Mohsen Nadimi; Hilbert, Timothy Lee; Kondis,
     Edward Frank; McGovern, Stephen James; Owen, Hartley; et al.
PA
     Mobil Oil Corp., USA
SO
     PCT Int. Appl., 121 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 31
                                          APPLICATION NO. DATE
                     KIND DATE
     PATENT NO.
                                         ______
                     ----
                           _____
     ______
                                          WO 1992-US6537 19920805
     WO 9304146 A1
                           19930304
PΙ
         W: AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE
     US 5346609 A 19940913
                                         US 1991-745311 19910815
     US 5409596 A
US 5348641 A
US 5352354 A
US 5407559 A
US 5413696 A
US 5413697 A
US 5308471 A
AU 9224652 A1
AU 661863
                                          US 1992-850106
                                                          19920312
                           19950425
                                         US 1992-880373
                                                         19920508
                           19940920
                                         US 1992-891134
                                                          19920601
                           19941004
                                         US 1992-891248
                                                          19920601
                           19950418
                                         US 1992-891124
                                                          19920601
                           19950509
                                         US 1992-913326
                                                          19920714
                           19950509
                                         US 1992-915571
                                                          19920720
                           19940503
                                         AU 1992-24652
                                                          19920805
                           19930316
                     B2
                           19950810
     AU 661863
                    T2
                                          JP 1992-503932
                                                          19920805
     JP 06509830
                           19941102
     JP 2788348
                     B2
                           19980820
               A1
B1
                           19950308
                                          EP 1992-918087
                                                          19920805
     EP 641375
                          19971229
     EP 641375
         R: BE, DE, FR, GB, IT, NL
PRAI US 1991-745311 A 19910815
     US 1992-850106
                    Α
                           19920312
```

```
A
A
A
A
A
   . US 1992-880373
                       Α
                            19920508
   · US 1992-891124
                            19920601
     US 1992-891134
                            19920601
   , US 1992-891248
                            19920601
     US 1992-913326
                            19920714
     US 1992-915571
                            19920715
     WO 1992-US6537
                            19920805
     ANSWER 64 OF 65 CAPLUS COPYRIGHT 2002 ACS
Ll
AN
     1991:188891 CAPLUS
DN
     114:188891
TI
     Hydrofining of low-sulfur gasoline fractions
     Pishchalov, Yu. V.; Aritkulov, Kh. Kh.; Kutlugil'din, N. Z.; Shapiro, R. N.; Glozshtein, A. Ya.; Kraev, Yu. L.
IN
PA
     "Lenneftekhim" Scientific-Industrial Enterprises, USSR
SO
     U.S.S.R.
     From: Otkrytiya, Izobret. 1990, (48), 92-3.
     CODEN: URXXAF
DT
     Patent
     Russian
LΑ
FAN.CNT 1
     PATENT NO. KIND DATE
                                          APPLICATION NO. DATE
     -----
                                           -----
     SU 1616964 A1 19901230
ΡĮ
                                           SU 1988-4495241 19881017
L1
    ANSWER 65 OF 65 CAPLUS COPYRIGHT 2002 ACS
    1975:549822 CAPLUS
\mathbf{A}\mathbf{N}
DN
     83:149822
ΤI
     Production of low-sulfur gasoline
AU
     Hoot, W. F.
     Kellogg (M. W.) Co., Houston, Tex., USA
CS
     U. S. NTIS, AD-A Rep. (1974), No. 240558, 149 pp. Avail.: NTIS
SO
     From: Gov. Rep. Announce. Index (U. S.) 1975, 75(13), 63
     CODEN: XTSRDM
```

DT

LA

English

Report; General Review